What is claimed:

1.   A disk for a hard disk drive having a head including a
read element and a write element, the read element and the write
element having a position offset, comprising:

a disk having a plurality of tracks, each track having
a centerline, one of said tracks having a servo field and a
calibration storage field with a calibration storage field
centerline that is centered along the track centerline, wherein
information representing the position offset is stored in the
calibration storage field.

2.   The disk as recited in claim 1, wherein a second one
of said tracks has a servo field and a calibration field with a
calibration field centerline that is offset from the track
centerline.

3.   The disk as recited in claim 2, wherein said
calibration field includes a calibration burst that is used to
generate a position offset signal.

1   4.   The disk as recited in claim 3, wherein said position

2 offset signal has a position offset signal amplitude that is

3 stored in said calibration storage field.

1   5.   The disk as recited in claim 2, wherein said track

2 includes a data field, said calibration field being located in

3 said data field.

1   6.   The disk as recited in claim 2, wherein said servo

2 field contains a set of servo bits including an A bit and a B

3 bit that have a common boundary located at the track centerline.

1   7.   A hard disk drive, comprising:

2   a housing;

3   an actuator arm mounted to said housing;

4   a head that is mounted to said actuator arm, said head

5 having a write element and a read element, the read element and

6 the write element having a position offset;

7   a spin motor mounted to said housing; and

8   a disk attached to said spin motor, said disk having a

9 plurality of tracks that each have a centerline, one of said

10 tracks having a servo field and a calibration storage field with

11 a calibration storage field center line that is centered along

12 the track centerline, wherein information representing the

13 position offset is stored in the calibration storage field.

1   8.   The hard disk drive as recited in claim 7, wherein a

2 second one of said tracks has a servo field and a calibration

3 field with a calibration field centerline that is offset from

4 the track centerline.

1   9.   The hard disk drive as recited in claim 8, wherein

2 said calibration field includes a calibration burst that is used

3 to generate a position offset signal.

1   10. The hard disk drive as recited in claim 8, wherein

2 said position offset signal has a position offset signal

3 amplitude that is stored in said calibration storage field.

1   11. The hard disk drive as recited in claim 8, wherein

2 said track includes a data field, said calibration field being

3 located in said data field.

1   12.   The hard disk drive as recited in claim 8, wherein
2 said servo field contains a set of servo bits including an A bit
3 and a B bit that have a common boundary located at the track
4 centerline.

1   13.   A method for calibrating and storing information
2 representing the offset between a read element and a write
3 element of a head in a hard disk drive, comprising the steps of:

4   a)   providing a disk having a plurality of tracks
5 each having a centerline, a first one of said tracks having a
6 servo field and a calibration burst with a calibration burst
7 centerline that is offset from the track centerline, a second
8 one of said tracks having a servo field and a calibration
9 storage field with a calibration storage field centerline that
10 is centered along the track centerline;

11   b)   measuring a profile of the calibration burst;

12   c)   generating a position offset signal
13 corresponding to the sensed calibration burst, said position
14 offset signal having an offset amplitude; and

15   d)   storing said position offset signal amplitude in
16 the calibration storage field.

1   10. The method of claim 9 further comprising the steps
2   of:
3   e)   aligning said read element with the calibration
4   storage field centerline; and

5   f)   reading the position offset signal amplitude
6   located on the calibration storage field.

1   11. The method as recited in claim 9, wherein step b)
2   comprises the steps of:

3   b1) aligning a read element over a first position of the
4   track that is -50% from the track centerline;

5   b2) sensing the magnitude of the calibration burst at
6   the first position;

7   b3) aligning the read element over a plurality of
8   positions of the track that is between -50% from the track center
9   line and +50% from the track centerline;

10   b4) sensing the magnitude of the calibration burst at
11   the plurality of positions; and

12   b5) storing the magnitudes of the calibration burst
13   corresponding to the first position and the plurality of positions
14   as the provide of the calibration burst.

1   18.   The method as recited in claim 12, further comprising the

2   steps of:

3   g)   aligning the read element over the track centerline;

4   and

5   h)   moving the read element in accordance to the

6   position offset signal amplitude stored in the memory device.